

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	("6931403").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/03 18:03
S2	7	("5637839"   "6012058"   "6115708"   "6233575"   "6263337"   "6405200"   "6546389").PN. OR ("6931403").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/03 18:13
S3	1	("6546389").PN.	USPAT	OR	OFF	2006/01/03 18:13
S4	12	("5787274"   "5799311"   "5870735"   "6055510"   "6138115"   "6230151"   "6247016").PN. OR ("6546389").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/03 18:37
S5	10582	((707/5,6,101,102) or (706/17,25, 45-61)).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/03 18:39
S6	1	("5794209").PN.	USPAT	OR	OFF	2006/01/03 18:39
S7	26	("5151988"   "5490060"   "5553279").PN. OR ("5794209"). URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/03 18:40
S8	1	S7 and (randomiz\$5)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/03 18:40
S9	8	S7 and (random\$7)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/03 18:42
S10	2	("5724573").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/04 10:16
S11	2	privacy same (data or dataset) same transaction same min\$3 same true same false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:17
S12	553	(data or dataset) same min\$3 same true same false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:17

S13	560	(data or dataset or transaction) same min\$3 same true same false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:17
S14	10582	((707/5,6,101,102) or (706/17,25, 45-61)).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/04 10:17
S15	23	S13 and S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:17
S16	20	S15 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:14
S17	29	("5724573"   "5758147"   "5765028"   "5884305"   "5899992"   "5943667"   "5946683"   "5974441"   "5978788"   "5978796"   "5983222"   "5991752"   "6006216"   "6023571"   "6032146"   "6038601"   "6049797"   "6061682"   "6078918").PN. OR ("6182070").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/04 10:20
S18	203	S14 and association rules	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/01/04 10:20
S19	187	S18 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:21
S20	73	S19 and random\$7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:22

S21	9	transaction same random\$7 same true same false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:22
S22	5	S21 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 11:05
S23	18	(insert\$3 with false) same transaction	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:57
S24	10	S23 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:32
S25	6223	data mining	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:33
S26	0	association rules same randomizing same dataset	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:37
S27	4	randomizing same dataset	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:38
S28	5	randomization same dataset	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:45

S29	620	(delet\$3 or remov\$3 or drop\$4) with true with (data or dataset or transaction)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:45
S30	470	(add\$3 or insert\$3) with false with (data or dataset or transaction)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:57
S31	12	S29 same S30	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:46
S32	8	(US-6931403-\$ or US-6546389-\$ or US-5794209-\$ or US-6182070-\$ or US-5991752-\$ or US-6832216-\$ or US-6272478-\$ or US-6450954-\$). did.	USPAT	ADJ	ON	2006/01/04 10:56
S33	2	S32 and false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:57
S34	0	(insert\$3 near false) and S32	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:57
S35	770	(add\$3 or insert\$3) near false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 10:58
S36	0	S35 and S32	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 11:03
S37	35370	perturb\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 11:03

S38	1705	S37 with data	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 11:04
S39	32	S14 and S38	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 11:04
S40	27	S39 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:28
S43	27	perturb\$5 same false same true	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:29
S44	18	S43 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:28
S45	92	true with likely with false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:29
S46	71	S45 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:30
S47	71	S46 not S44	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:28

S48	0	S47 and association rules	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:30
S49	1	perturb\$5 and S47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:29
S50	480	true with (likely or probab\$5) with false	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:29
S51	21	S50 and (association rules or perturb\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:30
S52	18	S51 and @ad<"20030721"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/01/04 13:30



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### 1 [Randomization in privacy preserving data mining](#)



Alexandre Evfimievski

December 2002 **ACM SIGKDD Explorations Newsletter**, Volume 4 Issue 2

Publisher: ACM Press

Full text available: [pdf\(153.11 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Suppose there are many clients, each having some personal information, and one server, which is interested only in aggregate, statistically significant, properties of this information. The clients can protect privacy of their data by perturbing it with a randomization algorithm and then submitting the randomized version. The randomization algorithm is chosen so that aggregate properties of the data can be recovered with sufficient precision, while individual entries are significantly distorted. ...

### 2 [Frequent patterns II: Privacy preserving mining of association rules](#)



Alexandre Evfimievski, Ramakrishnan Srikant, Rakesh Agrawal, Johannes Gehrke

July 2002 **Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery and data mining**

Publisher: ACM Press

Full text available: [pdf\(1.05 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a framework for mining association rules from transactions consisting of categorical items where the data has been randomized to preserve privacy of individual transactions. While it is feasible to recover association rules and preserve privacy using a straightforward "uniform" randomization, the discovered rules can unfortunately be exploited to find privacy breaches. We analyze the nature of privacy breaches and propose a class of randomization operators that are much more effective ...

### 3 [Limiting privacy breaches in privacy preserving data mining](#)



Alexandre Evfimievski, Johannes Gehrke, Ramakrishnan Srikant

June 2003 **Proceedings of the twenty-second ACM SIGMOD-SIGACT-SIGART symposium on Principles of database systems**

Publisher: ACM Press

Full text available: [pdf\(227.36 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

There has been increasing interest in the problem of building accurate data mining models over aggregate data, while protecting privacy at the level of individual records. One approach for this problem is to randomize the values in individual records, and only disclose the randomized values. The model is then built over the randomized data, after first compensating for the randomization (at the aggregate level). This approach is potentially vulnerable to privacy breaches: based on the distributi ...



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### 3 [Full papers: Mining association rules with non-uniform privacy concerns](#)



Yi Xia, Yirong Yang, Yun Chi

 June 2004 **Proceedings of the 9th ACM SIGMOD workshop on Research issues in data mining and knowledge discovery**

Publisher: ACM Press

 Full text available: pdf(221.06 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Privacy concerns have become an important issue in data mining. A popular way to preserve privacy is to randomize the dataset to be mined in a systematic way and mine the randomized dataset instead. On the other hand, people usually have different privacy concerns for different attributes in data. E.g., in survey data, the sensitivity of questions varies. Appropriate use of this information can lead to more accurate data mining results. However, this information has not been fully utilized by ma ...